STATUS OF THE CLAIMS

- 1. (Currently Amended) A method of treating a targeted subcutaneous histological feature within a given depth range below a skin surface in the human body with microwave energy comprising the steps of selecting a microwave frequency in which the loss factor of the targeted subcutaneous histological feature is greater than the loss factor of tissue surrounding the targeted subcutaneous histological feature; and directing microwave energy at the selected frequency into the skin with a power density and for a duration sufficient to raise the temperature of the feature to a level resulting in a permanent change in the pathology of the targeted subcutaneous histological feature due to interaction of the electric field of the microwaves with the targeted subcutaneous histological feature tissue without resulting in a permanent change in the pathology of the tissue surrounding the targeted subcutaneous histological feature.
- 2. (Previously presented) The method as set forth in claim 1 above, including the step of spreading the microwave energy with a distributed energy throughout an area at the depth range of the targeted subcutaneous histological feature.
- 3. (Previously presented) The method as set forth in claim 2 above, including the further step of cooling issue between the skin surface and the targeted subcutaneous histological feature during at least a portion of the treatment.
- 4. (Previously presented) The method as set forth in claim 1 above, wherein the targeted subcutaneous histological feature comprises hair and the interaction of the electrical field of the microwaves with the hair induces heating of the hair to cause permanent destruction of the follicles.
- 5. (Previously presented) The method as set forth in claim 4 above, wherein the targeted subcutaneous histological feature comprises hair roots approximately 5 mm below the skin surface, and wherein the method further includes the step of controlling power density and duration of the microwave energy to radiate the targeted subcutaneous histological feature with 10 to 15 Joules of energy.
- 6. (Previously presented) The method as set forth in claim 1 above, wherein the targeted subcutaneous histological feature comprises blood vessels of about 0.1 mm diameter or greater and

located 2 mm or less below the skin surface, and wherein the microwave energy thromboses blood in the blood vessels by raising blood temperature to in excess of 55°C.

7. (Previously presented) The method as set forth in claim 6 above, wherein the microwave frequency is in a range of 10-20 GHz, the microwave energy is in a range of 20 to 30 Joules, and the duration is shorter than a time for thermal relaxation of blood vessels in the targeted subcutaneous histological feature[s].

Claims 8-62 (Canceled)